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12 Attorneys for Defendant  
Apple Inc.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

17 COREPHOTONICS, LTD.,  
18 Plaintiff,  
19  
20 v.  
21 APPLE INC.,  
22 Defendant

Case No. 3:17-cv-06457-JD (lead case)  
Case No. 5:18-cv-02555-JD

**DECLARATION OF TING CHEN IN  
SUPPORT OF APPLE INC.'S  
OPPOSITION TO COREPHOTONICS,  
LTD.'S MOTION FOR LEAVE TO  
AMEND INFRINGEMENT  
CONTENTIONS**

Date: June 30, 2022  
Time: 10:00 AM  
Courtroom: 11  
Before: Hon. James Donato

1 I, Ting Chen, declare and state as follows:

2 1. I am an Engineering Director at Apple Inc. in camera firmware. I have been an  
3 Apple employee since 2006. I am familiar with the operation and functionality of the camera  
4 firmware in each of the products identified below.

5 2. I have been informed that Corephotonics accuses the following products of  
6 infringement and refers to them as the “Accused Products”: iPhone 11, iPhone 11 Pro, iPhone 11  
7 Pro Max, iPhone 12 mini, iPhone 12, iPhone 12 Pro, iPhone 12 Pro Max, iPhone 13, iPhone 13  
8 mini, iPhone 13 Pro, iPhone 13 Pro Max, iPad Pro 11-inch (2nd generation), iPad Pro 11-inch (3rd  
9 generation), iPad Pro 12.9-inch (4th generation), and iPad Pro 12.9-inch (5th generation).

10 3. I have been informed that Corephotonics has stated that, “The following still  
11 photograph was captured using an Accused Product with the zoom set so that the field of view of  
12 the output image is greater than that of the claimed tele (“wide” in Apple’s terminology) imaging  
13 section, such that at least some image data from the claimed wide (“ultra wide” in Apple’s  
14 terminology) imaging section is required to produce the output image:”

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4. I have been informed that Corephotonics has stated that, "The following still photograph was captured using the same Accused Product, with the only change being that the aperture of the claimed tele ("wide" in Apple's terminology) imaging section was covered to block light from entering it:"



5. I have been informed that Corephotonics states about these images that, "As can be seen, the picture has changed when the claimed tele imaging section was covered. Accordingly, the camera controller must be combining at least some of the wide image data (to provide the full field of view) with at least some of the tele image data."

6. I have been informed that Corephotonics does not identify which of the Accused Products was used to capture the images above.

7. The functionality described by Corephotonics and quoted in paragraphs 4-6 above does not combine image data from the Ultra Wide camera and the Wide camera to create a fused image. Corephotonics appears to describe functionality in which the Wide camera is used to collect statistics that are in turn used by all other apertures of the camera to adjust white balance and exposure before the image is captured.

8. This functionality existed in Apple's multi-aperture devices prior to those listed in Paragraph 5 above. Specifically, the iPhone 7 Plus, iPhone 8 Plus, iPhone X, iPhone XS, and

1 iPhone XS Max all had a Wide camera and a Telephoto camera. In each of those products, the  
2 Wide camera is used to collect statistics used to adjust white balance and exposure before an image  
3 is taken with either the Wide or Telephoto camera. Thus, in iPhone 7 Plus, iPhone 8 Plus, iPhone  
4 X, iPhone XS, and iPhone XS Max, when the Wide camera is covered, the image taken with the  
5 Telephoto camera changes similar to that shown in the images provided by Corephotonics  
6 (excerpted above).

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8 I declare under penalty of perjury that the foregoing is true and correct. Executed on June 2, 2022  
9 at [Cupertino, California].

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12 Ting Chen

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